108. (new) A method of modifying or detecting a polynucleotide, said method comprising:

- (a) providing in combination:
  - i) a medium suspected of containing said polynucleotide,
- ii) a first oligonucleotide or a molar excess of said first oligonucleotide relative to the concentration of said polynucleotide, with said first oligonucleotide having a 3' portion capable of reversibly hybridizing to said polynucleotide and a 5' portion which does not hybridize to said polynucleotide,
  - iii) a 5'-nuclease, and optionally
- iv) a second oligonucleotide that hybridizes to a site on said polynucleotide that is 3' of the site at which said first oligonucleotide hybridizes,
- (b) reversibly hybridizing under said isothermal conditions said polynucleotide and said first oligonucleotide, wherein said first oligonucleotide, when hybridized to said polynucleotide, is cleaved by said 5'-nuclease as a result of the presence of said polynucleotide to provide: (i) a first fragment that is substantially non-hybridizable to said polynucleotide, or a first fragment including said 5' portion and no more than one nucleotide from the 5' end of said 3' portion, and (ii) a second fragment that is 3' of said first fragment with reference to said first oligonucleotide and is substantially hybridizable to said polynucleotide, and optionally
- (c) detecting the presence of said first fragment, said second fragment, or said first and second fragments, the presence thereof indicating the presence of said polynucleotide.
- 109. (new). The method of Claim 108, wherein said polynucleotide is from a source selected from the group consisting of viruses, bacteria, fungi, mycoplasma, and protozoan.
- 110. (new). The method of Claim 108, wherein said oligonucleotide hybridization sites are contiguous.

